

## **Autoantibodies to Glucose-6-Phosphate Isomerase And Their Participation In Autoimmune Disease**

### **ABSTRACT**

5           It has been discovered that one of the causes of human rheumatoid arthritis is an  
autoimmune reaction to human glucose-6-phosphate isomerase. While human glucose-6-  
phosphate isomerase is a normal constituent of living tissue, and the underlying reasons  
for the autoimmune reaction are not understood, this discovery enables effective  
treatment of the disease, especially when the human immune reaction is the primary  
10   cause of the rheumatoid arthritis. The human antibody, anti-glucose-6-phosphate  
isomerase IgG, can be used to develop immunopolypeptides having binding capacity  
with the antigen. Antibodies and antibody fragments to the antiglucose-6-phosphate  
isomerase IgG, antisense oligonucleotides, conjugates of human GPI with cytotoxic  
agents, immobilized human GPI may be used to ameliorate or eliminate the immune  
15   reaction. The peptide, nucleotide products as well as methods of diagnosis and treatment  
are provided.

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